IN THE CLAIMS

Please amend the claims as follows.

Claims 1-27 (canceled)

28.   (withdrawn) A method for monitoring heart rate variability using a wrist worn heart rate variability monitor, comprising:

detecting electrical signals generated from a body by the body's heart;

analyzing the signals to determine heart rate variability; and

monitoring and storing the heart rate variability data.

29.   (withdrawn) The method of claim 28, further comprising performing a heart rate variability test.

30.   (withdrawn) The method of claim 28, further comprising:

analyzing the heart rate variability data to determine when the user is asleep; and

performing a heart rate variability test while the user is asleep.

31.   (withdrawn) The method of claim 28, further comprising performing a heart rate variability test while the user is awake and resting.

32.   (withdrawn) The method of claim 28, further comprising timing the monitoring of the heart rate variability data.

33.   (withdrawn) The method of claim 28, further comprising differentiating between an awake state and non-REM and REM sleep stages using heart rate variability data.

34.   (withdrawn) The method of claim 33, further comprising timing the duration of the sleep stages.

35.	(withdrawn) The method of claim 34, further comprising time-stamping the heart rate variability data.

36.	(withdrawn) The method of claim 33, further comprising waking the user after recognition of entry into REM sleep state.

37.	(withdrawn) The method of claim 33 further comprising:

recognizing the completion of at least one REM sleep state cycle; and

waking the user after recognizing the completion of one or more REM sleep state cycles.

38.	(withdrawn) The method of claim 33, further comprising:

recognizing non-REM sleep;

transmitting a signal from the monitor to at least one home control unit receiver;

transmitting a signal from the at least one home control unit receiver to a central home computer;

placing home in sleep mode based on instructions from the central home computer;

monitoring for sleep exit;

recognizing sleep exit;

transmitting a signal from the monitor to the at least one home control unit receiver;

transmitting a signal from the at least one home control receiver to the central home computer; and

placing home in awake mode based on instructions from the central home computer.

39. (withdrawn) A method for monitoring heart rate variability using a wrist worn heart rate variability monitor, comprising:

detecting electrical signals from a body by the body's heart;

analyzing the signals to determine heart rate variability;

monitoring and storing the heart rate variability data;

analyzing the heart rate variability data to determine when the user is asleep;

differentiating between an awake state, non-REM sleep state and REM sleep state; and

waking the user after recognition of entry into the REM sleep state.

40. (withdrawn) The method of claim 28, further comprising:

detecting a sleep apnea event.

41. (withdrawn) The method of claim 40, further comprising:

transmitting an alarm to a 3rd party, alerting them of the sleep apnea event.

42. (withdrawn) A computer program product for monitoring heart rate variability using a wrist worn heart rate variability monitor, comprising:

detecting electrical signals generated from a body by the body's heart;

analyzing the signals to determine heart rate variability; and

monitoring, analyzing and storing the heart rate variability data.

43. (withdrawn) The computer program product of claim 42, further comprising performing a heart rate variability test.

44. (withdrawn) The computer program product of claim 42, further comprising analyzing the heart rate variability data to determine when the user is

asleep; and

performing a heart rate variability test while the user is asleep.

45.   (withdrawn) The computer program product of claim 42, further comprising performing a heart rate variability test while the user is awake and resting.

46.   (withdrawn) The computer program product of claim 42, further comprising timing the monitoring of the heart rate variability data.

47.   (withdrawn) The computer program product of claim 44, further comprising timing of the duration of the performance of the HRV test.

48.   (withdrawn) The computer program product of claim 42, further comprising differentiating between an awake state and non-REM and REM sleep stages using heart rate variability data.

49.   (withdrawn) The computer program product of claim 48, further comprising waking the user after recognition of entry into REM sleep state.

50.   (withdrawn) The computer program product of claim 48, further comprising:

recognizing the completion of at least one REM sleep state cycle; and

waking the user after the recognizing the completion of at least one REM sleep

state cycle.

51.   (withdrawn) The computer program product of claim 48, further comprising:

recognizing non-REM sleep;

transmitting a signal from the monitor to at least one home control unit receiver;

transmitting a signal from the at least one home control unit receiver to a central

home computer;

placing home in sleep mode based on instructions from the central home computer;

monitoring for sleep exit;

recognizing sleep exit;

transmitting a signal from the monitor to the at least one home control unit receiver;

transmitting a signal from the at least one home control receiver to the central home computer; and

placing home in awake mode based on instructions from the central home computer.

52.   (withdrawn) The computer program product of claim 42, further comprising recognizing a sleep apnea event.

53.   (currently amended) A wrist worn heart rate variability monitor, comprising:

at least two electrical contacts for detecting analog electrical signals generated within a user's body when placed in contact with the body;

a circuit that conditions the electrical signals and converts the analog electrical signals to digital signal data;

a heart rate variability signal processor that monitors and analyzes the digital signal data for a defined time interval, and calculates parameters comprising the mean digital signal value and at least one standard deviation of the digital signal data monitored and analyzed over the defined time interval and establishes a threshold level based on the calculated parameters, wherein the calculated

threshold level is not predetermined and does reflect the user's actual heart rate and heart rate variability over the defined time interval, and wherein the processor performs at least one heart rate variability test; and

a memory that stores at least the parameters.

54. (previously presented) The monitor of claim 53, wherein the processor performs at least one heart rate variability test including comparison of the digital signal data against the calculated parameters.

55. (previously presented) The monitor of claim 53, wherein the analog electrical signals are generated by the body's heart.

56. (currently amended) The monitor of claim 53, wherein the <u>calculated</u> parameters are awake parameters calculated over the defined time interval comprising the mean awake heart rate value and at least one standard deviation thereof.

57. (currently amended) The monitor of claim 53, wherein the <u>calculated</u> parameters are non-REM parameters calculated over the defined time comprising the mean non-REM heart rate value and at least one standard deviation thereof.

58. (currently amended) The monitor of claim 53, wherein the <u>calculated</u> parameters are REM parameters calculated over the defined time comprising the mean REM heart rate value and at least one standard deviation thereof.

59. (currently amended) The monitor of claim 53, wherein the processor calculates awake parameters comprising the mean awake heart rate value and at least one standard deviation thereof over a defined time interval<u>, calculates a threshold level based on the calculated awake parameters</u>, performs at least one heart rate variability

test ~~using~~ comprising comparing the calculated awake parameters with the calculated threshold level and recognizes when the user has entered non-REM sleep.

60.   (currently amended) The monitor of claim 59, wherein the processor recognizes that the user has entered non-REM sleep, further calculates non-REM parameters comprising the mean ~~awake~~ non-REM heart rate value and at least one standard deviation thereof over a defined time interval, calculates threshold levels based on the calculated non-REM parameters, performs at least one heart rate variability test ~~using~~ comprising comparing the calculated non-REM parameters with the calculated threshold levels and recognizes when the user has either become awake or entered REM sleep.

61.   (currently amended) The monitor of claim 60, wherein the processor recognizes that the user has entered REM sleep and calculates REM parameters comprising the mean REM heart rate value and at least one standard deviation thereof over a defined time interval, performs at least one heart rate variability test ~~using~~ comprising comparing the calculated REM parameters with the calculated threshold levels and recognizes when the user exits REM sleep.

62.   (previously presented) The monitor of claim 53, further comprising a processor that is capable of performing the at least one heart rate variability test while the user is awake and resting.

63.   (previously presented) The monitor of claim 53, further comprising a processor that is capable of performing the at least one heart rate variability test while the user is physically active.

64.   (previously presented) The monitor of claim 53, further comprising a processor capable of performing at least one heart rate variability test to determine when the user has fallen asleep and performing at least one heart rate variability test during the user's sleep period.

65.   (previously presented) The monitor of claim 53, further comprising a timer, wherein the timer times the duration of the monitoring of the digital signal data and time stamps the digital signal data.

66.   (previously presented) The monitor of claim 65, wherein the timer further times the duration of the at least one heart rate variability test.

67.   (previously presented) The monitor of claim 54, further comprising a waking prompt and wherein the processor recognizes REM sleep based upon the at least one heart rate variability test, and wherein the waking prompt is activated upon recognition of REM sleep.

68.   (previously presented) The monitor of claim 67, wherein the processor recognizes REM sleep based on the at least one heart rate variability test, discerns and counts REM sleep cycles and wherein the waking prompt is activated after a specified number of REM sleep cycles are completed by the user.

69.   (previously presented) The monitor of claim 54, further comprising detection of at least one sleep apnea event based upon the at least one heart rate variability test.

70.   (previously presented) The monitor of claim 69, further comprising a waking prompt that is activated when a sleep apnea event is detected.

71.   (previously presented) The monitor of claim 53, wherein the monitor further comprises a back surface, a conductive membrane disposed on at least part of the back surface of the monitor and having contact with the user's skin to increase the ability of the monitor to detect the analog electrical signals.

72.   (previously presented) The monitor of claim 71, further comprising the conductive membrane being porous.

73.   (previously presented) The monitor of claim 72, further comprising conductive gel, the conductive gel being applied to the conductive membrane and incorporated into the conductive membrane pores to increase the monitor's ability to detect the analog electrical signals.

74.   (currently amended) The ~~apparatus~~ monitor of claim 54, for the control of appliances installed in each room, comprising: home information transmission paths from the wrist worn heart rate variability monitor to each room; at least one home control unit receiver, connectable to the transmission paths, installed in selected rooms for transmitting and receiving information along the transmission paths, the wrist worn heart rate variability monitor capable of transmitting an awake signal or a sleep signal to the at least one home control unit receiver based upon heart rate variability data; a central home control unit, connectable to the transmission paths, the at least one home control unit receiver and to appliances in the rooms, whereby the control unit receives the awake or sleep signal transmitted by the at least one control unit receiver, wherein when an awake signal is transmitted to the appliances by the computer, the appliances are turned on and when a sleep signal is transmitted by the computer, the appliances are turned off.

75.   (currently amended) The ~~apparatus~~ monitor of claim 74, further comprising the home information transmission pathways capable of receiving wireless transmission from the monitor, the pathways wirelessly transmitting the wake or sleep signal to the central home control unit and the pathways wirelessly transmitting the wake or sleep signal to the home appliances.

76.   (currently amended) The ~~apparatus~~ monitor of claim 74, further comprising the home information transmission pathways capable of receiving electronic transmission of wake or sleep signal from the monitor, the pathways electronically transmitting the wake or sleep signal to the central home control unit and the pathways electronically transmitting the wake or sleep signal to the home appliances.

77.   (new) The monitor of claim 53, wherein the threshold level is predetermined and not calculated by the processor.